



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/589,473	08/14/2006	Paul D. Zemaný	20040005	8361
22500	7590	11/20/2007		
BAE SYSTEMS PO BOX 868 NASHUA, NH 03061-0868			EXAMINER PIHULIC, DANIEL T	
			ART UNIT 3662	PAPER NUMBER
			MAIL DATE 11/20/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/589,473

Applicant(s)

ZEMANY ET AL.

Examiner

Daniel Pihulic

Art Unit

3662

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 August 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 20071004.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: ____.

1. Applicant has complied with the conditions for receiving the benefit of an earlier filing date under 35 U.S.C. 119(e).

2. Claims 1-5, 9-12 and 17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 recites the limitation "the change" in line 7;

claim 3 recites the limitation "the 900 MHz band" in line 1;

claim 5 recites the limitation "the graph" in line 2;

claim 9 recites the limitation "the 900 MHz band" in line 1;

claim 10 recites the limitation "said threshold detector" in line 1;

claim 11 recites the limitation "the of" in line 2;

claim 12 recites the limitation "the graph" in line 2; and

claim 17 recites the limitation "the 900 MHz band" in line 1.

There is insufficient antecedent basis for these limitations in the claims.

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for

purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1, 16, 17 and 19 are rejected under 35 U.S.C. 102(b) as being anticipated by US5446461. The US5446461 reference discloses the detecting the presence of an individual (15) behind a wall (14) phase, comprising a CW radar transmitter (17) through a wall; detecting portions of the CW radar signal returned by an object behind the wall; a phase detector (46); and a threshold comparator (48) as recited in claim 1.

With regards to claim 16 and 19, the US5446461 reference discloses the utilization of a directional antenna (see figure 1).

With regards to claim 17, the US5446461 reference discloses the utilization of frequencies in a band including 900MHz (see column 4, line 31).

5. Claims 1-3, 6, 11, 13 and 16-19 are rejected under 35 U.S.C. 102(b) as being anticipated by US5345240. The US5345240 reference discloses the detecting the presence of an individual (30) behind a wall (20) phase, comprising a CW radar transmitter (column 1, line 59) through a wall; detecting portions of the CW radar signal returned by an object behind the wall; a phase detector (see abstract); and a threshold comparator (26) as recited in claim 1.

With regards to claims 2 and 18, the US5345240 reference discloses the utilization of a substantially constant frequency (see claim 7).

With regards to claims 3 and 17, the US5345240 reference discloses the utilization of frequencies in a band including 900MHz (see column 1, lines 61-62).

With regards to claim 6, the US5345240 reference discloses the utilization of a mixer (21).

With regards to claim 11, the US5345240 reference discloses detecting a phase difference (see the abstract).

With regards to claims 13, 16 and 19, the US5345240 reference discloses the utilization of a directional antenna (see figure 1).

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 4 and 7-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over US5345240 as applied to claims 1 and 6 above, and further in combination with US5196826. The difference between the US5345240 reference and claims 4 and 7 is that the claim recites the utilization of an adaptive threshold. The US5196826 reference teaches that it was well known in the art to utilize an adaptive threshold (24). It would have been obvious to modify the US5345240 reference to utilize an adaptive threshold as motivated by the US5196826 reference to enable the US5345240 system to enhance detection of moving objects.

With regard to claim 8, the US5345240 reference discloses the utilization of a substantially constant frequency (see claim 7).

With regards to claim 9, the US5345240 reference discloses the utilization of frequencies in a band including 900MHz (see column 1, lines 61-62).

8. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over US5345240 as applied to claim 13 above, and further in combination with US5790032. The difference between the US5345240 reference and claim 14 is that the claim recites the utilization of Yagi antenna. The US5790032 reference teaches that it was well known in the art to utilize Yagi antenna. It would have been obvious to modify the US5345240 reference to utilize Yagi antenna as motivated by the US5790032 reference to enable the US5345240 system to detect a breathing being (see column 11, lines 13-17).

9. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over US5345240 as applied to claim 13 above, and further in combination with US6313643. The difference between the US5345240 reference and claim 15 is that the claim recites the utilization of a planar antenna. The US6313643 reference teaches that it was well known in the art to utilize a planar

antenna. It would have been obvious to modify the US5345240 reference to utilize a planar antenna as motivated by the US6313643 reference to enable the US5345240 system to imitate beam steering (see column 6, lines 45-60).

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dan Pihulic whose telephone number is 571-272-6977. The examiner can normally be reached on Tuesday through Thursday and every other Monday and Friday from 5:30 a.m. to 4 p.m. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Tarcza, can be reached on 571-272-6979.

The fax phone numbers for the organization where this application or proceeding is assigned are:

571-273-8300 for official responses, and

571-273-6977 for unofficial communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the telephone number 800-786-9199.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197.

**/Daniel Pihulic/
Daniel T. Pihulic
Primary Patent Examiner
T.C. Art Unit 3662**